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ORIGINAL LECTURES.

CLINICAL LECTURE

ON HIP-DISEASE, SECOND AND THIRD STAGES.

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Phonographically reported by WILLIAM A. GEORGE, M.D.

THIS young girl has just been brought to me from Connecticut, for exsection of the hip-joint. We will now learn her history.

M. V. B., 12 years old, always a healthy, robust girl, previous to present illness. Four years ago she had a severe fall, which resulted in acute inflammation of the hip-joint. Dr. Hunt, of Jersey City, was called in, and treated it properly with extension and counter-extension and short splint, curing the child in six months. The girl was then taken to the country, where, in her romps and plays, she must have sustained some further injury, and lighted up anew the inflammation in that joint. The girl was again placed under medical treatment, but a different treatment from that employed by Dr. Hunt, and now, gentlemen, after three years of agony, you see the result.

I am glad this case has come before us, for it illustrates a point which cannot too strongly be impressed on your minds; I refer to the absolute necessity of continuing the extension, or at least guarding the joint from pressure or concussion, long after all symptoms of disease have vanished. Had that joint been shielded a little longer, there would, in all probability, have been no relapse.

Her condition, as you see her here on the table, is, right leg shortened, adducted, and flexed, with numerous sinuses ramifying in the soft parts around the joint, all of which, I have no doubt, lead to dead bone. There is apparently no motion in this joint; it is anchylosed, to all appearances. Pressure causes pain, the most exquisite agony. The girl has passed to the third stage of the disease: the capsule has ruptured, allowing its contents to escape into the surrounding tissues; the adductor muscles, by their irritable contractions, have changed the abduction and outward rotation of the second stage to adduction and inward rotation, so characteristic of the third; the bone, becoming eroded, has died, and nature has been for two long, weary years attempting to throw it off. Nature is kind; she does all in her power; but sometimes the task is too great.

It is now our duty to see how far this exfoliation of dead bone has gone, how perfectly or imperfectly nature has performed her work. It is possible—in fact, probable, from the long continuance of the disease—that there is nothing here to exsect but what can be accomplished without our assistance. What I do in exsection is only to imitate nature, to aid her. I can do in ten minutes what requires her years to perform. But exsection is not always justifiable. There are cases of the disease in the third stage which get well without it,—true, with distortion; and it is a question in this case, where the disease has been permitted to progress so far, and where, by exploration, I find so little dead bone left, whether to exsect or to place the limb under the most favorable conditions for nature to finish her work. Taking everything into consideration, I will choose the latter plan: at least we will give it a trial.

As I intimated, this anchylosis is only apparent: it is muscular rigidity. When I make extension and relieve the joint from pressure, I can obtain some motion. Now, how are we to obtain these favorable conditions? First, by extension, which, she says, gives her ease. Secondly, we will gradually change this extension from the line of deformity to that of abduction and eversion. Probably most of you remember a little girl in about the same condition as this one, in which case we passed a seton from one side of her thigh to the other, and which proved of great service; and if we can do the same in this, it will, I have no doubt, be beneficial. [The professor here passed a rubber tube through the thigh from the inner to the outer side.] Yes, we can; there is no danger of that pipe closing up; and this constitutes our third point in avoiding exsection here.

As a matter of course, as I have before said, exsection with the saw, in many cases, has advantages over exsection by nature; and this is especially the case where dead bone is imprisoned behind fascia, or in a dense involucrum; and if

nature does finally manage to work it through, and the patient recover, it is only with deformity most aggravated.

Those of you who were here the first day of the session will remember the pale-faced child who was so nearly dead that it was not considered safe to perform an operation; but, as death seemed inevitable, I concluded to give her the chance for life, and when we plunged the knife into her hip, you will also, perhaps, remember how the pus gushed out in torrents. Here she is to-day, walking around, with red cheeks and with every prospect of getting well. She has no pain. I have seen that child only twice since the operation, and I am very much obliged to the doctors of the house staff for their care of the case. You see, gentlemen, that you can do these things as well as I. Here is this child, whom I have seen but twice since the operation, with both legs of the same length, and the motions of the joint perfect. I want to impress upon you the importance of learning how to treat these cases, and of then going to work and doing it. There is no mystery, no trickery or jugglery, about it. It is plain, practical, common sense, and every one of you is capable of learning it as seen in this case, and, so far as I am able to instruct you, I am determined you shall learn it. I very well remember, when I was a student, listening to a professor's remarks about what he had done. I remember following him through the many intricacies and details of his operations, and trying to comprehend the many delicate manipulations by which he accomplished his purpose; and well do I recollect his finally saying, "But, gentlemen, these difficult operations are not for you; you need not bother yourselves respecting them: they are reserved for the magnates of the profession alone."

Gentlemen, I mean to strip these operations of their fancy garniture, and make them appear to you as plain as the day; for I believe it is not a doctor's business to tell his class what has been done, but to instruct them how to do it.

The next case is C. D., male, aged 9 years, brought to me for diagnosis; a healthy, well-made boy.

As mentioned previously, a dislocated femur must first have been located before dislocation; and so it is with form: there must be form before there is deformity, and hence the necessity of being familiar with what is natural, to discover or detect that which is unnatural. Another thing to be thought of is that no matter how slightly the body may be out of position, it is at once complicated with various compensating curves, and it is of importance, though sometimes exceedingly difficult, to eliminate these secondary distortions, and to locate the real or primary deformity. A soft bed like that, for an obscure case like this, is absolutely worthless. What we want is a solid plane upon which to lay the boy.

In order to get the trunk and pelvis normal in their relations to each other, we will place them in such position on the table that a line drawn from the centre of the sternum to the pubis will intersect at right angles a line drawn from one anterior superior spinous process of the ilium to its fellow, being careful to have the posterior spinous process of the ilium down on the table. By doing this we discover where the real deformity exists, whether in the trunk or extremities.

Here is deformity, and plenty of it; but which is the primitive distortion and which the compensating curves? First, then, to get his trunk and pelvis straight and his back down on the table, we are compelled to flex his right leg at an angle of forty-five degrees, and adduct it across the median line, rotating it inward, and adduct, flex, and rotate outward his left leg.

We will now take up the right leg, leaving the left one entirely out of consideration. In connection with the deformity just mentioned, I find here atrophy and also anchylosis, which proves to be fibrous.

(To the father of the boy) Did this child ever have anything the matter with his leg?

"Yes, sir; when he was four years old he had what the doctor called hip-disease in that leg."

Oh! that explains it all. This deformity, then, is due to antecedent hip-disease. We will now go back to our former position, forgetting that he has a right leg.

As before remarked, we find here abduction, flexion, and outward rotation. He has slight pain. I will now carry these movements a little further,—that is, abduct, flex, and outwardly rotate the limb. How does that feel, my boy? (Child) "It feels good." Now, gentlemen, what have I done to make this child feel "good"? I have simply taken the pressure off that sensitive joint by *unfolding* the capsular

ligament. The boy has hip-disease on this side in its active stage; there is an effusion in this capsule, and nature has endeavored to accommodate that effusion by unfolding the capsular ligament, which is done by the leg assuming this position.

I will now reverse these movements, adduct, and *inwardly* rotate, and—there it is (the boy cries).

When I make concussion I cause pain. Extension relieves him. Now, if I could sit here and hold this young one in this easy position for six months, he would get well; but I can't do that, and, consequently, what is wanted is some apparatus that will gradually extend and hold this leg in a comfortable position; then, as the joint becomes less irritable, slowly change the limb to its natural state.

He has, therefore, hip-disease of the left leg in the second stage, and fibrous anchylosis of the hip-joint of the right leg, with distortion due to antecedent hip-disease in that leg.

Dr. Crosby.—You will remember, gentlemen, we noticed in this case, when he was before us last week, that when we made concussion by striking the boy on the bottom of the foot, driving the leg upwards, we gave him pain; but when pressure was made over the trochanter it did not hurt him; and from this I was led to think that perhaps the trouble might be in the sacro-iliac junction; and I would ask Prof. Sayre to examine the boy with reference to this point.

Dr. Sayre.—The reason for this, as I will demonstrate to you, is that in making compression of the head of the femur against the acetabulum the point of forcible contact did not happen to be the exact spot where the diseased portion was situated. [This the professor demonstrated to the class by compressing the bones at different parts of their surfaces, sometimes eliciting pain, and at other times receiving no complaint.] I am glad Prof. Crosby has called your attention to this point, as it gives me an opportunity to insist upon your making a complete and thorough exploration of the entire joint.

This disease having occurred twice in the same subject will afford a good argument as to its being of a strumous origin; but the boy does not look strumous. Even with his disease he presents no strumous appearance whatever, and his family give no history of scrofula.

We will apply extension to the left leg by the long splint with abducting screw, and, by breaking up the fibrous anchylosis of the right leg, make a pretty good boy of him after all.

ORIGINAL COMMUNICATIONS.

ALBUMINURIA AND ECLAMPSIA AT THE EIGHTH MONTH OF PREGNANCY.

BY JAMES S. BAILEY, M.D.

MARY K., æt. 42, September 20, 1875, came to engage me to attend her in confinement. She had had one normal labor eight years previously. Her skin was pale and transparent, her feet and limbs swollen tightly, and her urine highly albuminous. About dark, September 21, she had an attack of acute pain in the epigastrium. An anodyne procured relief and sleep. Towards daybreak she was seized with eclampsia. I saw her in the second spasm, which was very severe; when this had passed off she was rational, but could not see. During the next twelve hours she had four convulsions, which left her unconscious. She had passed but a small quantity of bloody urine. I gave her bromide of potassium in ten-grain doses every two hours, which controlled the spasms. The administration of ten grains of calomel opened her bowels freely.

The next day she was rational, but could not see. The pulse was frequent and feeble, with coldness of the extremities. There had been no motion of the child since the first spasm.

September 24.—Is rational; her condition is much improved; she is cheerful, but cannot see. The right leg and arm are considerably swollen, and she cannot use them. The circulation is better. Her urine is scanty. I am enabled now for the first time since the seizure to procure urine for examination, which is solid with albumen. The bromide is continued, and she is to drink freely of parsley-root tea.

September 25.—She cannot distinguish a person standing at the foot of the bed. Has passed half a gallon of urine during the last twenty-four hours.

September 26.—Passed one and one-third pints of urine. Is improving.

September 28.—The swelling has left her face and limbs. Her vision has improved, and she can now turn over in bed without assistance. She has passed during the day one gallon of urine. Treatment continued.

September 29.—Says that she is well.

September 30.—To-day she sat up for the first.

October 1.—Labor set in at 9 A.M.; by 12

M. the os uteri was fully dilated. The membranes ruptured, disclosing a foot-presentation. The birth was soon accomplished, excepting the head, which was large, and, as the fœtus was much decomposed, I feared to make much traction, lest the head would be severed from the trunk. The forceps were applied and the delivery completed by half-past twelve o'clock.

There were no more spasms, and she continued to improve rapidly.

Upon relating the case to professional friends, I was advised to induce labor immediately; but, as the woman was seemingly progressing favorably, I determined to wait for labor to set in naturally, and, if eclampsia appeared, to deliver at once. The happy termination, I think, proved my judgment correct.

The points of interest in this case are as follows: the degree of health experienced by the woman even up to the time of the occurrence of spasms, she not having suspected any trouble. She said that her health was perfect, and that she never had felt better. The poison was sufficient to destroy the child, yet the mother perfectly recovered.

The variation in the quantity of urine secreted every twenty-four hours is also surprising, varying in quantity from ten ounces to one gallon by actual measurement. Also in the quantity of albumen contained in the urine each day.

A tabulative statement of the urine is here presented, showing its condition during the most trying period of her sickness:

	Reaction.	Specific Gravity.	Quantity of Albumen.	Appearance.	Quantity per diem.	Microscopical Appearances.
Sept. 21	Acid.	1015	One-fifth.	Normal.		Renal epithelium, no casts.
" 22	Alkaline.	1030	Solid.	Dark amber.	2 ounces.	Granular and hyaline casts, renal epithelium, blood-globules.
" 24	Acid.	1015	One-half.	"	½ pint.	Hyaline and granular casts, epithelium.
" 25	"	1013	One-third.	Normal.	½ gallon.	Uric acid crystals, epithelium and granular casts.
" 26	"	1018	One-third.	"	1½ pints.	Degenerated renal epithelium, uric acid, granular casts.
" 27	"	1018	One-fourth.	"	½ gallon.	Granular casts, epithelium, uric acid.
" 28	"	1018	One-eighth.	"	1 gallon.	Granular and hyaline casts, renal epithelium.
" 29	"	1018	One-sixth.	"	3 quarts.	Hyaline and granular casts, epithelium.
" 30	"	1022	Three-fourths.	"	3 pints.	A few hyaline casts.
Oct. 1	"	1010	One-fourth.	Smoky amber.		Blood-globules abundant, hyaline and granular casts.
" 2	"	1010	One-third.	Normal.		Blood-globules and hyaline casts.
" 3	"	1010	One-sixth.	Reddish deposit.		Blood.
" 8	"	1025	One-third.	Normal.		No casts, renal epithelium, blood-globules.
" 18	"	1023	Faint trace.	Amber.		Precipitate abundant, renal epithelium, one fatty cast found with epithelium attached.
" 21	"	1030	"	"		Renal epithelium abundant.
" 25	"	1012	Free.	"		No casts, but little epithelium.

It has been my custom to examine attentively the urine of pregnant women seeking my services for accouchement, especially when there were evidences of albuminuria.

During the last five hundred accouchements in which the urine was examined, I find twenty-eight cases in which albumen was found in varying traces. In six of these the albumen depended on the admixture of pus. Deducting these, we have a ratio of one in nearly twenty-two cases.

This complication existed in a large proportion among primiparæ.

For such investigations the urine should always be drawn with a catheter, to insure freedom from admixture with vaginal secretions.

The physician learns at last, after patient investigation and long experience, that the urine of pregnancy may present, microscopically, all the varieties and numbers of casts which are recognized in the different stages of Bright's disease, yet, after the successful lying-in period has passed, these threatening symptoms may entirely disappear, and the patient recover her wonted health. The difficulty in rendering a correct prognosis is therefore apparent.

Such cases teach us a valuable lesson, for while we have escaped one difficulty we are warned of another which may not be far distant. Such serious renal encroachments are apt to be followed by similar

ones in future pregnancies: therefore, when such is the case, watchfulness and frequent examinations of the urine are demanded.

According to my experience, primiparæ are more liable than multiparæ to albuminuria and eclampsia, but the graver consequences are most commonly settled on the latter.

Mercurial purges are very beneficial in some cases. I use calomel in full doses, followed with bark and iron, especially when the head-symptoms are absent and hydræmia is well marked. The salines for prophylactic treatment have with me answered an excellent purpose.

The condition of the skin should always be taken into consideration. When there is a hot dry surface, a mustard pediluvium given in bed operates speedily in obtaining diaphoresis; then diaphoretics and diuretics come in admirably, but it is always best to select those that are least stimulating. When there is sleeplessness and excitability of the nervous system, I give bromide of potassium. The tea of parsley-root taken freely will, so to speak, wash the kidneys thoroughly, which in my opinion is absolutely necessary to save the patient from the toxic effect.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

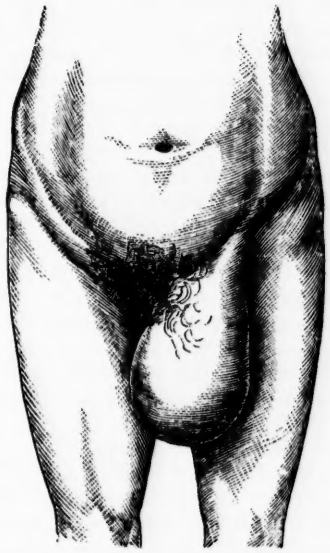
SERVICE OF DR. R. J. LEVIS.

Reported by JOHN B. ROBERTS, M.D., Resident Surgeon.

LARGE INGUINAL HERNIA IN A FEMALE.

A WOMAN aged 42, in giving birth to a child sixteen years ago, had developed, on account of the violence of the labor, a hernia at the left groin. At first it was small, but during this long period it has continued to increase in bulk, notwithstanding the various forms of truss which she has worn, until now the tumor is fourteen and a quarter inches in circumference, and nine inches in length from the rounded extremity to its junction with the belly-wall. The hernia is entirely reducible, and, by invaginating the sac, it is possible to pass two fingers through the ring into the abdominal cavity.

Although the contents of the tumor can be returned to the abdomen while the patient is recumbent, yet as soon as she coughs or rises to the erect position the intestines are protruded into the large sac. She has, consequently, a scaphoid belly, and, indeed, sometimes has difficulty in keeping her clothing fastened around the waist, because of the absence of the prominence in the belly. The pain felt in the tumor is described by her to be similar to labor-pains.



A protrusion of any of the contents of the abdomen through the abdominal wall is a hernia; but there are two forms of hernia which, on account of their relative frequency, are of the most practical importance. Inguinal hernia is produced when a part of the small intestine, which is the viscus usually concerned in hernia, is forced through one or both inguinal rings. This form is situated above Poupart's ligament, while femoral hernia, which escapes through the femoral canal, just internal to the femoral vein, is below that ligamentous structure.

The fact is, however, that these hernial tracts are so near together, the relative position of the parts so altered by long-continued pressure, and the bowel after escaping may be forced so much upward or downward, that it becomes difficult at times to diagnose which variety is present. Such was the case in the present instance, for although the tumor occupied the left labium of the vulva, and was so great in bulk, yet the neck of the sac seemed to be situated in the femoral canal. On closer examination it was determined to be a case

of indirect inguinal hernia descending into the labium, just as in the male this form of hernia, when large, becomes scrotal. The finger, introduced into the opening when the bowel was returned and the sac invaginated, could distinctly feel the body of the pubis below, and the tendinous edges of the inguinal ring above and laterally.

The patient has worn a number of trusses, but has not been able to obtain one that would keep the bowel within the abdomen. Before undertaking any operation for the radical cure of the case, however, it was thought proper to try a truss which would fill up the hernial canal. Accordingly, Dr. Levis had made a large triangular pad to fit the groin, having projecting from its centre a piece of wood like a finger and about two and a half inches long. The hernia was then reduced by taxis, the sac invaginated, and the projection of the truss passed into the hernial canal. Then the elastic band attached to the pad was buckled tightly around the waist, and two perineal bands adjusted to keep the apparatus from becoming displaced.

This truss seems to fulfil the indications, and, if the patient can tolerate it, will probably make her much more comfortable than she has been, without incurring the risk of an operation for the radical cure of the hernia. Even if a certain amount of inflammation should be produced it would not be regretted, because if lymph were thrown out around the hernial opening partial occlusion might result.

TRANSLATIONS.

CHANGES IN THE NERVOUS SYSTEM IN HYDROPHOBIA.—Kolesnikoff (*Centralblatt f. Med. Wissen.*, No. 50, 1875) investigated the condition of the nervous system in ten dogs that had died of hydrophobia. The parts examined included the hemispheres, corpora striata, thalami optici, cornua ammonis, cerebellum, medulla oblongata, spinal cord, the sympathetic and vertebral ganglia. The most marked changes were observed in the two latter, and were as follows: 1. The vessels were enlarged, choked with red blood-corpuscles; occasionally, extravasated red corpuscles and round indifferent elements (probably white corpuscles) were found in the perivascular spaces. The walls of the vessels were here and there filled with hyaloid masses of various forms, which occasionally extended into the lumen of the vessels, and closed this as a thrombosis would. Not far from these masses collections of white and red blood-corpuscles could be observed, the latter deprived of color. They could be seen also in all stages of metamorphosis into hyaloid globules. 2. In the pericellular spaces of the nerve-cells could be observed collections of round indifferent elements, whose penetration, to the number of five to eight or even more, pressed out the protoplasm of the cells. This penetration of the elements spoken of was frequently sufficient to change the form of the nerve-cells, giving them at different times a sac-formed, bulged, or flattened-out appearance. Further, the nucleus was sometimes pushed towards the periphery of the cell and surrounded by many round elements. In other cases, only groups of round (indifferent) bodies could be observed in place of the nerve-cells. In isolated nerve-cells the changes described could also be observed. These appearances, it will be observed, resemble those described by Popoff (see *Medical Times* for December 11, 1875) as noticed in typhoid fever and traumatic disturbances. Kolesnikoff promises a continuation of these researches. X.

MASSAGE IN ACUTE DISEASES AND INJURIES OF THE JOINTS.—G. Berghman (*Centralblatt f. Chirurgie*, No. 52, 1875) has treated one hundred and forty-five cases of recent traumatic affections, synovitis, distortions, etc., of the joints by massage, with good results. The number of sittings required varied according to the recent or longer standing of the trouble,—from twelve to forty-four in the former, and from forty-four to sixty-eight in the latter. The advantage gained is, earlier and more perfect use of the joint than by any of the old methods of cure. The earliest possible use of the treatment is strongly urged by Berghman. X.

CONTAGION AND PUTRIDITY.—A. Hiller (*Centralblatt f. Med. Wissen.*, No. 49, 1875), believing that investigators into the influence of vegetable organisms upon the production of contagious diseases have never properly isolated these organisms in their experiments, has undertaken certain investigations, the results of which go to show that these organisms are not in themselves the originators of disease, but probably either the carriers only, or the

exciters and reproducers of the latter. Cleansing bacteria of all forms, isolating them in distilled water, and then introducing them into the organism in various ways, Hiller has failed to produce septic infection. He therefore denies to these organisms all independent mechanical parasitic action, as well as the possibility of reproduction in living and healthy tissues, the blood in particular. He admits that their small size and ubiquity fit them to be the frequent and even constant accompaniment of accidental traumatic diseases, and that they may imbibe and carry septic poisons, causing local manifestations of various kinds. In the second part of his paper Hiller details certain experiments in the injection of small quantities of active bacteria from putrid solutions into fresh eggs, the result showing no appearance of putridity in the latter, even after some days. Hiller concludes from this that bacteria are incapable in themselves of bringing about tissue-change in albumen or of assimilating it in an unchanged condition. He believes, however, that there exist in the dust of the atmosphere, besides bacteria and animate germs, certain other inanimate organic matters which cause putrefactive fermentation, whether they are cellular (physiological) ferments or the proteic substances concerned in decomposition of which Liebig has spoken. From the fact that dust collected in a chamber and made into an infusion with recently-boiled distilled water showed signs of putrefactive change (bacteria, etc.) in a few days, H. concludes that atmospheric dust must hold actual putrescible substances.

X.

A Case of Pyæmia after Pneumonia (Dr. B. Knessner: *Berliner Klinische Wochenschrift*).—The patient, a man aged 42, a free drinker, had a chill on the 23d of January, 1875, followed by fever. Soon afterwards he complained of pain in the side, and began coughing and expectorating bloody sputa. He continued working for two days, but, as all his symptoms increased in severity, he was finally compelled to seek his bed, and on the 27th of the month he was admitted into the hospital. It was then found that upon two occasions —seven and four years previously—he had had attacks of inflammation of the lungs, and since that time had a cough with expectoration; but this, according to his statement, had never had a bloody tinge, and he had always been able to continue his work, which was of a laborious character, in an iron-foundry. At the time of his admission the entire cutaneous surface was moist, slightly yellow, as were also the conjunctivæ, and his face was slightly cyanotic.

After examination, the diagnosis of croupous pneumonia of the right side, with an old infiltration of the apex of the left lung, was made, and the patient was ordered brandy and an infusion of ipecacuanha. His sleep was somewhat restless, but in other respects he continued in the same state until the 1st of February, when he had a severe chill, and his temperature rose to 40.7° Cent. At the same time an eruption made its appearance over the whole body. Most of these spots vanished upon pressure, but quickly returned; but a few of them left, when pressure was made upon them, a dark-red spot in the centre. The patient soon became insensible to all attempts to attract his attention, but this state alternated with one of delirium. The diagnosis of pyæmia was made by Prof. Naunyn, and the treatment appropriate to this affection adopted.

The recovery was protracted, and when on the 17th of March the patient left the hospital he had no recollection of the dangerous illness through which he had passed. A physical examination, which was made about the middle of April, showed that, with the exception of the old infiltration at the apex of the left lung, which was mentioned above, nothing abnormal existed. The right lung was, so far as could be ascertained, entirely healthy, and the same was true of all the other organs, more especially of the heart. The spots at which the eruption had been seen could only be found by the most careful examination. It can scarcely be doubted that pyæmia really existed, as the course of the fever did not accord with anything else. The occurrence of pyæmia after pneumonia, especially where there is no abscess formed in the lung, is extremely rare. This case is especially interesting on account of the cutaneous eruption, which was a symptom of pyæmia and due to embolism. It was not of the character of any of the eruptions which sometimes occur in the course of pneumonia, and agreed fully with the embolism of the skin which is described by Cohn. Whether the skin was the only seat of emboli or not cannot

be decided, for it is possible that capillary embolism also occurred. A favorable result in a case of pyæmia is always deserving of mention, and the amount of good due to treatment is very problematical; but it seems very probable that this patient was benefited by the continued and energetic inhalations of turpentine which were made, and which have usually so good an effect in all destructive and suppurative processes of the lungs. W. A.

THE CLINICAL SIGNIFICATION OF FATTY EMBOLISM (Prof. Dr. V. Czerny: *Berliner Klin. Wochenschrift*, Nos. 44, 45, 1875).—The prognosis of simple fractures, when the customary methods of treatment are employed, is so favorable that it scarcely occurs to the physician that these injuries may, independently of any complication, lead to sudden and unexpected death. This result is of such rare occurrence that the best authorities on these subjects make no mention of it, and when it is met with it gives rise to great astonishment among the public.

A case of this kind occurred in November, 1874; the patient being a strongly-built man, aged 32 years, who fell from a scaffold and fractured his right thigh, and who died thirty-eight hours after the accident, with symptoms of pulmonary trouble. Microscopic examination of the lungs showed that the smaller arteries and veins were filled with fluid fat, and in some places they were so distended that it appeared as if an injection of the lung with fat had been made. In the narrower branches of the pulmonary arteries were found coagula, which, when floated in water, gave evidence of the presence of globules of fat. The same conditions were found in the blood taken from the femoral vein, while in that taken from the right ventricle and from the great longitudinal tissues fat-globules were but sparingly found. In the brain fatty embolism was also found at points in the vessels which corresponded to small ecchymoses which were noticed. In the kidneys the vessels of the glomeruli were filled with fat, those of the other portions of the organ to a less marked extent. The fatty embolism of the lungs was extensive enough to account for death, since it would give rise to disturbance in the pulmonic circulation and induce death from œdema and from poisoning with carbonic acid gas. Czerny concludes, from his observation of cases and from experiments upon animals, that this complication should be looked for in cases in which, without apparent cause, there occurs, during the first few days, a rapid increase in severity of symptoms due to disturbance of the circulation in the lungs, and secondarily in the capillary portion of the greater circulation. That death was really due to this cause can only be certainly stated when at the post-mortem examination there are found changes in important organs of sufficient extent. These cases are especially those in which shock is given by English authors as the cause of death; but from deaths belonging to this category must be taken all those in which there is an interval of comfort of several hours' duration between the occurrence of the injury and the fatal termination. It is possible, also, that some deaths which have been ascribed to traumatic delirium or to commotio cerebri were really due to fatty embolism. To account for the occurrence of this, it is necessary to have fluid fat in a free state, as is met with when a bone is crushed and its cavity opened, and to suppose that this fat is forced, either by arterial pressure or by muscular action, into veins which have been torn. It can be readily understood that these conditions are fortunately not often present, but fatty embolism of a light degree may occur with nearly every fracture, and not cause any untoward results. W. A.

THREE CASES OF SCLEREMA (Drs. Bernhardt and Schwabach: *Berliner Klin. Wochenschrift*, No. 47, 1875).—Two of these patients were females, while the third was a male; and this agrees with previous observations, that the female sex furnishes the greater proportion of the sufferers from this affection. In two of the cases the outbreak of sclerema was preceded by œdematous swelling, which was due to local disturbances of the circulation, while in the third case the disease attacked a limb the veins of which had for some time been varicose in a high degree. One of the cases is also of particular interest from the involvement of the bones and joints, being in agreement with what has been noted by recent French observers. In all three of these cases, the conducting power of the skin for galvanic currents was increased; and this was probably due to diminished thickness of the cutis, and to its being adherent to the subcutaneous cellular tissue. W. A.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 5, 1876.

EDITORIAL.

THE REASON WHY.

NO great reform was ever pushed to a conclusion except in the face of antagonism and difficulty; and when, as in most instances, material interests are affected, the bitterness of the opposition is usually in proportion to the value compromitted.

Our present system of medical education is a monstrous evil. Acknowledged to be such even forty years ago, it has grown as rapidly in its inadequacy as the science of medicine has expanded in its details. Discussion, addresses beyond number, editorials amounting in the aggregate to volumes, conventions, bitter words and soft words, denunciation, satire, irony, every possible form of attack within the profession has been made continuously, for many years, and the result has been null,—so futile as not even to rustle the feelings of those interested in the perpetuation of the wrong. Under these circumstances it is not possible but that sooner or later earnest men would drag the abuse out into the daylight and arraign it before the bar of public opinion, the highest of American tribunals, whose power is omnipotent, and whose decision must be the final one in all questions of public interest. Where this is done, of course a bitterness of feeling must arise, whose intensity is the measure of the probability of good being effected. Reform means overthrowing of old idols, the destroying of old interests, and can never be a smooth transition.

That professional agitation has failed is patent from the condition of the schools in New York and in this city, but is signally shown by the annual announcement for 1876 of the Louisville Medical College and of the Kentucky School of Medicine. The dean and leading spirit of the faculties of these institutions is one and the same physician, a member of the American Medical Association, the editor of two journals of reputed respectability, a man, so far as his distant brethren can judge, of excellent and acknowledged professional standing in his State. Yet the session of the Louisville Medical College begins October 4 and ends in the last week of February, whilst that of the Kentucky School of Medicine commences the 1st of March and ends the 23d of June, openly in order that candidates may graduate and receive a diploma from both schools in nine months from the time they commence their studies. After such an avowal it is with much refreshment that we read, "As the medical profession justly withdraws its support and confidence from all medical institutions giving more than one graduating course in a year, the Kentucky School of Medicine will give but one graduating course annually, but this will always be given in the spring." In all earnestness, we would ask, How much better is this than the sale of diplomas by some of our Eastern quack institutions? The avowed prostitute is not so much worse than her sister in apartments who maintains an outward respectability. On the whole, it is not wonderful that the dean of these schools should share the indignation of some of his Eastern confrères at the dragging of this matter of medical education before the public.

The failure of professional discussion seems inherent. The circumstance that many of the leaders of the profession are those most interested in the perpetuation of the wrong, the powers of united interests, the indifference of many physicians, the fact that enactments of medical societies cannot be enforced, the impossibility of obtaining endowment funds from the profession itself, oppose insuperable obstacles to a general reform being wrought out within the profession.

It is hopeless to expect medical faculties to originate reform. There is too much of personal interest at stake. It is not merely a question of diminished remuneration. Even if that be provided against, many a professor fears even more greatly than lessened revenue the increased labor and the adaptation to the new methods of teaching, which involve a familiarity with laboratory work. Moreover, habit blunts the susceptibility of the perceptive powers. A recent legal writer of great eminence epitomizes the history of reform, in speaking of English criminal law. He says, "When the judges were asked whether capital punishment should be abandoned for the theft of the amount of five shillings, they all said 'No.' We laugh at them; and yet in other things the judges of the present day are possibly quite as conservative. As a rule, perhaps, the opinion of a man who has worked long and successfully under a system is almost valueless with regard to its faults or merits. Reformers are either men who have suffered under a system, or boys."

On the other hand, it may be—indeed, has been—said that discussion outside of professional journals can do nothing but harm; that it will diminish the public respect for the profession, and achieve no useful result. The ostrich-like character of human nature is rarely better shown than in the belief that the preservation of public respect by a profession can ever rest upon any other basis than a maintenance in the profession of that which commands respect. "If we don't tell them, they won't find it out." Oh, fools and blind! To wonder and mourn why it is the profession has not the influence here that it ought to have, or even that it once had, to acknowledge that the profession is largely composed of most unworthy material, and yet to tremble for fear of losing influence when the attempt is made to improve that material, because such attempt involves the public acknowledgment of the unworthiness! It is probable that the neighborhood was aware of the condition of the Augean stables before Hercules essayed to clean them. No, gentlemen. Make the profession thoroughly worthy of respect, and it will command respect. The reason we are losing our hold, and that homœopathy, dying everywhere else in the civilized world, is gaining, or at least not losing, here, is not because the American people are less intelligent or more easily humbugged than other nations, but because the regular profession is not what it ought to be.

There are only two possible remedies for the evil, one partial, the other complete; the one the endowment of medical schools, the other the formation, by legislation, of State Examining Boards, which shall license to practise. It is plain that discussion confined to the profession can never achieve either of these desired results. Endowments must come from merchants, manufacturers, or others, whose business it is to amass wealth. Only after a public acknowledgment by the medical schools of their deficiencies, and of their need of money, can endowments be obtained. As concerns legislation, it has been asserted that there can never be laws which shall produce satisfactory results. But this is a mere assertion, which is based upon the supposition that a republic is, of very necessity, forever condemned to bad government, and which can never be proven until the effort to effect legislation is put forth. Discussion outside of medical journals must be a preliminary to any effort for legislation.

In conclusion, it may be allowable to sum up briefly the reasons which have been set forth as demanding discussion of medical education outside of medical journals. They are—discussion confined to members of the profession is powerless in the presence of the present emergency; unless we believe in shams rather than in truth, it is absurd to believe the profession will, on the whole, be injured by outside discussion;

there is every reason to believe that such discussion will lead to reform in medical teaching, to obtaining of endowments, and perhaps even to the enactment of laws which shall prove satisfactory in practice.

WHY DR. COBB WENT TO THE PENITENTIARY.

SOME of our readers may have noticed a statement in the daily papers that a certain Dr. Cobb, of Troy, New York, had been sent to the penitentiary for indecently exposing human bodies. If the witnesses at the inquest did not perjure themselves, the doctor richly deserved all that he received. It appears that on the evening of December 30 he entered a saloon in Troy and called for a drink. Then he extracted from the pocket of his ulster a fœtus, which he dandled upon the bar, and, as the crowd gaped and shuddered, he drew forth a second. After dancing them backwards and forwards together for some time, he further astonished the roughs and rustics gathered about him by deliberately stirring his favorite beverage with the hand of one of the fœtuses and gulping the liquor, when mixed, with evident gusto. The bodies were offered to the proprietor of the saloon, who was about to enter upon his duties as coroner, for his first case, but were declined. Finally, they were thrown by the acting coroner or his servant into the manure-pit of a livery-stable, where they were found after some days. On a plea of guilty, Dr. Cobb was sentenced by a police magistrate to pay a fine of fifty dollars and to spend six months in the Albany penitentiary. We think that at least one of the coroners should share his cell.

THERE is a bill before the California Legislature which provides that in future the regular Homœopathic and Eclectic State Medical Societies shall appoint Boards of Examiners, which boards shall have the sole right to license physicians to practise in the State.

CORRESPONDENCE.

NEW YORK, January, 1876.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR,—At a discussion on *perityphlitic abscess* at the Academy of Medicine, last month, Dr. Leonard Weber related three cases in which he had operated. In the first one, after carefully cutting through the abdominal walls down on to the fascia transversalis, no sense of fluctuation could be detected, and he therefore simply introduced a drainage-tube, and then closed up the greater part of the incision by suture. In a short time the abscess ruptured, and on the second day afterwards a hard lump of fecal matter was discharged. The operation was performed on the seventh day of the attack, and the patient made an excellent recovery.

In the second case a well-defined tumor was perceptible on the eighth day, and a long incision was then made, as in the previous one. While palpation was being made over the fascia transversalis for the purpose of detecting fluctuation, the walls of the abscess suddenly gave way, and a considerable quantity of pus poured out. The wound did not heal up readily, and from time to time some connective tissue was discharged from it. Union was furthermore delayed by an attack of traumatic erysipelas, which occurred some weeks after the operation; and when it finally did take place, the cicatrix was of such a character that Dr. Weber deemed it prudent for the patient to wear a truss. The offending foreign body in this instance was an orange-seed.

In the third case the patient was suffering at the time from secondary syphilis. As in the preceding one, the abscess was ruptured by the finger during palpation, and a large quantity of pus evacuated. Union took place in the course of several weeks, during which there were two marked aggravations of the symptoms, characterized by high febrile reaction, pain, and dysuria; and after these considerable quantities of pus were found in the urine. In this case the incision was made on the ninth day. No foreign body was discovered. This patient was also instructed to wear a truss, with a view of preventing the occurrence of hernia.

Dr. Fordyce Barker stated that he had not infrequently met with perityphlitic abscess following parturition, and especially during epidemics of puerperal fever. In these cases, he said, it was often exceedingly difficult and required great care to make a differential diagnosis. In this affection the temperature is usually not very high,—perhaps never as high as 104° Fahrenheit; nor is there the rapidity of the pulse generally seen in puerperal peritonitis. As a rule, there is much less constitutional shock than in metritis and phlebitis, and the absence of rigors is a very

notable point. Vomiting and dysuria are pretty constant symptoms, and the formation of the abscess is often preceded by a swelling of the limb, which may be mistaken by the inexperienced for phlegmasia dolens. There is rarely much tympanites in this affection. Recovery followed a number of cases in which an external opening was made. In one case about an ounce of pus was withdrawn by the aspirator, after which the patient was placed upon very large doses of quinine, and made a good recovery.

Drs. Weber and Gordon Buck had both noticed rigors in some of their cases, but they were not at all a prominent symptom. Each of these gentlemen deprecated any operative interference, as a rule, before the sixth or seventh day.

Dr. Barker has been elected Vice-President of the Academy. Dr. Purple still retains the Presidency, there being no election for that office this year.

At the last meeting of the Society of Neurology and Electrology, the annual election of officers took place, and Prof. D. B. St. John Roosa now succeeds Dr. Clymer in the presidential chair.

Last week, at the Medical Journal Association, Dr. H. G. Piffard read a paper on *Alopecia Areata*, in which he confessed himself to be in the large majority of observers who had never been able to discover any fungus in this affection, as opposed to the small minority who professed to have done so.

Among the latter were Gruby, Bazin, Fox, and White, of Boston. Fox claims that there are two distinct forms of the disease: one parasitic, which ought properly to be called *tinea decalvans*, and one non-parasitic, to which the term *alopecia areata* should be strictly limited. Dr. Piffard related a number of cases which he had met with in his own practice, most of which showed a curious relation existing between this affection and trichophytosis, or ringworm. A short time since, Dr. Zinsser, of this city, had informed him that he had found in one instance that the hairs presented under the microscope the appearances of fatty infiltration near their roots.

Since then, Dr. Piffard has found this fatty infiltration in all the cases he has had an opportunity of examining: so that he thinks this discovery of Dr. Zinsser invests the disease with altogether a new interest. He is indeed inclined to believe that Fox, Bazin, and others have actually mistaken fat-globules for spores. As to the minute and elaborate description of the cryptogamic fungus given by Gruby, there can be doubt, he said, that it applies accurately to the characteristic parasitic growth of trichophytosis, and has, therefore, nothing whatever to do with alopecia.

Some cases of alopecia areata seem to recover spontaneously; but it is not well to trust the cure to nature. The indications are for the administration internally of neurotics, —of which arsenic is one of the best,—and the local application of antiparasitics and stimulants. The method which Dr. Piffard recommends is the depilation of the margins and the use of a blister of cantharides over the spots of baldness. As soon as the latter has healed, the part is to be shaved every four or five days, and another blister applied at the end of two or three weeks. An ointment of turpeth mineral (ten grains to the ounce) is also a very useful application in many cases. A cure can usually be effected in from two to four months. Dr. Piffard has used both the constant and the induced current in this affection; but with no appreciable good result.

On the 27th of December, Dr. Edward L. Keyes read a paper before the County Medical Society on the "*Effect of Treatment upon the Blood in Syphilis, as shown by the Hæmetimètre*," in which he gave the results of a number of original experiments conducted by himself during a period of six months. Dr. Keyes believes in general that mercury is the best treatment for syphilis; that it should be given in small doses which are sufficient to control the manifestations of the disease and yet which do not produce any injurious constitutional effects; and that, combined with the iodide of potassium, which materially aids its efficacy, it should be kept up continuously for at least two years. His observations were made on the blood of twenty-seven persons, twenty of whom were syphilitic. One hundred and one counts were made in all,—the red corpuscles being counted four or five times at each count. In the blood of the healthy male adult he found that there were on an average about five million red corpuscles to one cubic millimetre. In anæmia, the number is rarely less than three million; and in five of the individuals whose blood was examined it amounted to over six million.

The effect of small doses of mercury upon the blood early in syphilis was found to increase the number of red corpuscles in all the cases examined; though, of course, as good hygienic conditions as possible were secured, and tonics administered at the same time, when necessary.

To determine the effect of the long-continued use of small doses of mercury, the blood of those syphilitic patients who had been taking it for six, eleven, and eighteen months respectively was examined, and in each instance the number of red corpuscles was found to be above the normal average; the individuals themselves being in excellent general condition.

In the blood of a patient who was salivated there was found to be a diminution of one million red corpuscles to the cubic millimetre.

Out of nine cases of long standing in which the iodide of potassium had been combined with mercury, the blood of only two showed the number of red corpuscles to have fallen below the healthy average.

The blood of three hospital-patients was examined, and in all was deficient in red corpuscles; though in one case, at least, their number increased under the use of mercury and tonics. All the other cases were in private practice.

In individuals not syphilitic, and otherwise in good condition, mercury in small doses (one-fifth grain of the protiodide) was found to increase the number of red corpuscles in the blood.

The conclusions which Dr. Keyes has arrived at are briefly as follows:

1. Syphilis diminishes the number of red corpuscles.

2. Mercury diminishes the number of red corpuscles when given in excess,—especially in hospital-patients.

3. Mercury in small doses increases the number of red corpuscles in syphilis, whether it is given for a long or a short period, and whether alone or combined with the iodide of potassium.

4. Mercury in small doses acts as a tonic (for a time at least) on individuals not syphilitic in average health, increasing the number of red corpuscles.

5. Mercury in small doses acts as a tonic on animals as well as human beings, but in large doses is rapidly prostrating.

Dr. A. D. Rockwell, the *collaborateur* of Dr. Beard in his large work on Electro-Therapeutics, has recently prepared a brief *résumé* of the indications for the use of electricity in disease, for the benefit of those who may occasionally desire to submit to electrical treatment forms of persistent disease where the ordinary methods fail, but who have neither the time nor the opportunity to consult exhaustive treatises. The following are among the points touched upon:

I. Electricity as a tonic in nervous exhaustion, dyspepsia, constipation, etc. Electricity, especially used after the method of general faradization, is not a *mere* stimulant, but rather a tonic of subtle and often extraordinary power; its efficacy consisting in a tendency to improve nutrition, to restore enfeebled functions, and to invigorate the system and permanently increase its capacity for labor. It is indicated in nervous exhaustion in its myriad manifestations, and especially in those occasional cases of exhausted vitality where ordinary tonics have failed.

II. Electricity as a sedative in neuralgia, chorea, spinal irritation, hysteria, and allied affections.

Sedative influences, which may be induced by the proper application of the currents, indicate their use where we desire to allay irritability and pain and induce natural repose.

III. Electricity as a motor and sensory excitor in paralysis and anæsthesia.

It is superior to any other remedy in its power to restore the lost or impaired functions of the motor and sensitive nerves, and is *par excellence* the remedy in most forms of anæsthesia, in the various local paralyses of adults, and in infantile paralysis. In paralysis of central origin it is necessarily less effective, but is generally indicated at some stage of the disease to prevent atrophy and improve nutrition.

Under galvanization of the spine, alternated with general faradization, a few cases of *locomotor ataxia*, *progressive muscular atrophy*, and *writer's cramp* have apparently recovered, a considerable number are very greatly benefited, about the same number are slightly improved, and in a few cases absolutely nothing is accomplished. Experience would seem to justify the assertion, however, that the progressive structural change in the cord is arrested by persistent galvanization of the spine.

When no severe pathological state is the cause of the symptom, electricity, in the form of the constant current, is very frequently a most effective remedy for *amenorrhœa*.

The use of the constant current, both locally applied and by the method of central galvanization, is often of much avail in certain forms of *skin-disease*, and is especially reliable in eczema, prurigo, and herpes zoster.

The *electrolytic* action of the galvanic current renders it of great value in certain surgical diseases, and it is to be especially recommended in erectile and cystic tumors, and in goitre. Nævi may almost invariably be treated successfully by this method, while but little if any scar is left to mark their seat.

The great advantage of the *galvano-cautery* over the actual cautery is the fact that the heat in the wire connected with the battery can be controlled at will. Its advantages over cutting are as follows: 1. It can be used on parts that are not easily accessible to ordinary instruments. 2. It saves all, or nearly all, hemorrhage. 3. It occasions but little pain after the operation, and is rarely, or never, dangerous. 4. It is followed, like electrolysis, by a more satisfactory healing than is the case after the use of the knife or the ligature, and, as after electrolysis, there is less liability to pyæmia.

This *résumé* Dr. Rockwell does not consider by any means exhaustive. Besides the above, there are many symptoms connected with disorders of digestion, with diseased conditions of the eye and ear, with derangement of both the male and the female generative apparatus, with hypochondriasis and melancholia, and with forms of spasmodic disease, which are often excellently met by some method of electrization.

In a paper before the Neurological Society, about the 1st of the month, on the Trifacial, Dr. D. H. Goodwillie spoke particularly of *neuralgias* not confined merely to the face, but extending to the neck and down the arm as far as the elbow (in some cases even accompanied by slight paralysis), which were en-

tirely dependent on the exposure of dental pulps, or the thinness of dentine from mastication making the pulp subject to thermal changes.

He related a number of cases from his own experience in proof of this. In one of them, where the pain was felt only when acids were taken, it was found that in mastication a gold filling in one of the teeth in the upper jaw came in contact with an amalgam filling in one of the teeth of the lower jaw, and that an electrical current was set up between them by the action of the acid. In many of the cases narrated, the teeth had never been in the least suspected, by the attending physicians, of being the cause of the trouble, and the patients had therefore been suffering needlessly sometimes for years. They were all completely and permanently cured by correcting the condition of the teeth. In those instances in which the dentine had been worn thin by mastication, gold caps, beneath which was placed some non-conducting material, were put on.

The Seventeenth Annual Report of St. Luke's Hospital, for the year ending October 18, 1875, has now been published; and from it we learn that the past year has been an exceptionally busy one, not only on account of the increased number of patients cared for, but because of the unusually large proportion of the very sick. The number of charity patients was unprecedentedly large; so that out of a total of 50,664 days of hospital care no less than 41,347 were gratuitous, showing a daily average of 113 free patients.

The increased expenditures have given rise to considerable financial difficulty in the management of the institution, and a strong appeal is made for a more ample permanent endowment. The first Hospital Sunday collection in the Episcopal churches of this city, in December, 1874, produced, from twenty-two churches, over $7000. This collection was repeated on the last Sunday of December, 1875, but we have not heard its result as yet.

The number of patients treated during the year was 1054, of whom 539 were cured, 223 improved, 32 unimproved, and 124 died, making a death-rate of 11¾ per cent. One hundred and twenty-five surgical operations were performed; 37 of them being capital ones. Of hip-joint disease 27 cases were treated, one only being an adult, and that terminating fatally. In all, 4 died, and of these 2 were in a desperate condition when admitted. Eight of the 27 have been cured, and 13 have been improved, with the promise of an ultimate cure. Two have as yet shown no improvement, one complicated with abdominal dropsy, and the other with spinal disease. From the table of operations it seems that only one exsection of the hip was made. Among the operations which proved fatal were a ligation of the external iliac artery for aneurism, and an ovariotomy, the only one performed during the year. In disease of the spine, 18 cases were treated, 4 of which were cured, 10 greatly improved and allowed to return home with good prospects, and 3 died,—2 of pneumonia, and 1 of exhaustion incident to the disease. The sanitary condition of the wards was unusually good during the year, and for the last six or seven months they were almost absolutely free from erysipelas as a complication of surgical cases.

At the annual meeting of the managers of the Women's Hospital, Dr. Fordyce Barker made the anniversary address, and the report of the Medical Board was read by Dr. Thomas. During the year 1875, 350 patients were treated, and there were 59 in the house at the time the report was made out. There were 15 deaths, of which 2 were from natural causes and 13 the result of operations. Of these, 136 were performed during the year. In the out-door department 3526 patients were treated.

At the first meeting of the Board of Health in the new year, it was decided to reduce the salaries of all those serving in the department, in consequence of the reduction of the appropriation for the payment of salaries having been cut down this year from $140,000 to $120,000. Sanitary Inspectors will, therefore, receive $1600, instead of $1800, as heretofore; and Assistant Inspectors $1350, instead of $1500. The salaries of the Health Commissioners, being fixed by law, remain unchanged.

There were 30,703 deaths in this city during the year 1875. In the last week of the year there were 556 deaths (against 579 for the corresponding week of 1874), or an average of 29.35 for every 1000 of the population. The rate of the normal increase of population is shown by the last two census enumerations to be 1.5 per cent. annually. This rate of increase would give 1,047,344 as the total population at July 1, on which the annual death-rate is based, and which, for 1875, is 29.81 per 1000. This is considerably higher than that of London and most other large cities, both in this country and in Europe, and certainly a great deal higher than it ought to be; but it is in great part accounted for, no doubt, by the enormous infant mortality among the crowded tenement population during the heat of the summer, and also by the great influx of homeless poor and sickly persons into New York during the winter, which increases the mortality in the public institutions.

At the meeting of the Board of Health this week, Dr. Day, Sanitary Superintendent, made a report on the very admirable condition of the immense abattoir in the western half of the Manhattan Market, at the foot of Thirty-fourth Street. This seems to be quite a model institution in its way, and is conducted by a company, of which Dr. Henry Draper, formerly Professor of Physiology in the Medical Department of the University, is, we believe, the President. During the summer of 1875, 10,000 cattle were slaughtered there,

the blood and offal being rendered on the spot; and yet not a single complaint was made by any one in regard to it. The whole place is thoroughly cleaned every day, and on Saturdays, when no slaughtering takes place, it is disinfected with chlorinated lime. The materials to be rendered are placed in tightly-covered tanks, which are never opened during the processes, and all the disagreeable gases are carried out into the tide-water of the North River.

Diphtheria still continues epidemic here, as it has been for so long; and there really seems to be very little prospect of our getting rid of the pest. During last week 138 cases were reported, and in the week previous, 126.

On the evening of January 11, a novel and interesting entertainment was given to the medical students of New York, in the shape of a reception by the Young Men's Christian Association, in the spacious and comfortable rooms of their elegant building. It had, no doubt, a very happy effect on the young men present, especially those at a distance from their friends and from home influences; and we would respectfully suggest to our kind-hearted friends of the city of Brotherly Love, that when the fine structure now being erected at the corner of Fifteenth and Chestnut Streets is completed, a similar reception should be tendered in it to the medical students of Philadelphia. On this occasion, each student was presented with a ticket admitting a lady and gentleman, so that by nine o'clock, the hour for the commencement of the exercises, the large hall of the Association Building was completely filled. The programme consisted of an address of welcome by the President of the Association, Mr. William E. Dodge, Jr., in which he gave a most cordial invitation to the young men to make use, at all times, of their commodious building, with its library, reading-rooms, gymnasium, baths, etc., followed by congratulatory and entertaining speeches by representative men from the three colleges,—Professors Fordyce Barker, Thomas, and St. John Roosa; and these were interspersed by very enjoyable selections of vocal and instrumental music. Shortly after ten, the company adjourned to the library and parlors, where refreshments were served to all, and some further musical performances were given for their entertainment.

Dr. John R. Van Kleek, a much-esteemed practitioner of this city, died, suddenly, on the 2d of January, at the age of sixty-six. He was formerly a President of the County Medical Society, and his funeral was attended by that body.

The death is just announced, in Brooklyn, of a young man, due, it is supposed, to scratches from the claws of a cat. The case is said to have presented many points of interest, and Dr. Sullivan, the attending physician, is inclined to think that it was one of true hydrophobia. PERTINAX.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, NOVEMBER 11, 1875.

The PRESIDENT, DR. WM. PEPPER, in the chair.

Congenital absence of the radius. By Dr. H. LENOX HODGE.

THE dissection of the arm has been very carefully made by my friend Mr. T. Mortimer Lloyd, student of medicine, who has also furnished the following memoranda of the examination:

"A white male subject, without any previous history, was brought to the Anatomical Rooms of the University of Pennsylvania. The body was well developed in all respects, except the left fore-arm and hand. The apparent age was seventy years.

"The left arm was of normal size to the elbow, but the fore-arm was much shorter than normal, being about eight inches in length. The hand and wrist were placed nearly at right angles with the fore-arm, being drawn towards the radial side, the palm looking towards the body. The whole hand was much smaller than its fellow of the opposite side; the thumb especially was very small, its metacarpal bone lying almost in front of the metacarpal bone of the index-finger, so that it was directed towards the palm. No cicatrices were found in the skin.

"Upon dissection, no cephalic vein was found, but two large veins were found on the inner side of arm, one in the normal position of the basilic, the other accompanying the brachial artery. The brachial artery, and the median, ulnar, and internal cutaneous nerves, were in their normal positions, above the elbow; below the elbow, the brachial gave off the radial artery, a small branch going down and supplying the muscles on the outer side of fore-arm, passing over and in front of the metacarpal bone of the thumb to palm of hand. The ulnar artery, the main continuation of the brachial, supplied all the muscles on the inner side of fore-arm, and formed chiefly the superficial and deep palmar arches of the hand. The radial nerve was not traced below the elbow. A large branch of the median supplied the muscles on the outer side of fore-arm. The median nerve supplied the flexors, both sides of the thumb, first and second fingers, and radial side of ring-finger. The ulnar nerve supplied the flexor carpi ulnaris, and both sides of the little and one-half of ring finger.

"The biceps muscle of this, as well as that of the right arm, was supplied with a third head, arising from the upper portion of the shaft of the humerus, and on this side the tendon of the biceps was inserted into the coronoid process of the ulna. A flat, triangular muscle,

arising from the internal condyloid ridge, converged to a tendon and joined that of the biceps. A muscle supposed to be the supinator longus had a normal origin for that muscle, but extended across the elbow-joint anteriorly, and was inserted into the intermuscular septum on the inner side of arm. The brachialis anticus, origin normal; insertion, inferior extremity of humerus anterior to joint, and coronoid process of ulna, beneath the insertion of the tendon of the biceps. The flexors sublimis digitorum and profundus digitorum had a common origin from upper two-thirds of ulna, inner side, and the intermuscular septum between these and the flexor carpi ulnaris, and had normal insertions. The flexor carpi ulnaris was well developed, had its origin from inferior extremity of humerus, and from the whole length of ulna on its inner and posterior surface (this was the only muscle attached to posterior surface of ulna except the triceps, which was inserted into the olecranon, as usual), normal insertion.

"Extensor communis digitorum, origin from anterior surface of ulna, also receiving a strong tendinous slip from the tendon of the biceps. The tendons of insertion normal. Extensor carpi ulnaris well developed; origin, upper two-thirds of ulna, and the intermuscular septum of the triceps; its tendon passed over a groove on inferior extremity of ulna, and was inserted into the metacarpal bone of the little finger. The pronators and the extensors and flexors of the thumb and of the radial portion of carpus were absent. The only muscle to the thumb was a small slip, having its origin from the metacarpal bone of the middle finger.

"Action of muscles. The hand was drawn towards the ulna by the extensor carpi ulnaris. The dorsum thrown outwards—away from the body—by extensor communis digitorum. The palm drawn inwards—towards the body—by the flexors sublimis and profundus digitorum.

"The radial bone was entirely absent. The ulna had well-marked olecranon and coronoid processes and sigmoid cavity, but was articulated a little nearer the external condyle than normal. The length of the ulna was seven and a half inches, from olecranon process to inferior extremity; its shaft was curved, the concavity being anteriorly. The carpus was articulated on radial side of ulna—not at its extremity—and almost at right angles with it."

Dr. JOHN ASHHURST, Jr., remarked that he observed a small piece of bone in the usual position of the head of the radius, and asked Dr. Hodge whether this was a rudimentary radius, or an abnormal process of the ulna.

Dr. HODGE replied that, being a dry preparation, it did not admit of that accurate study which could be made if the bone were thoroughly cleaned; it might be a part of the ulna, or a rudimentary radius.

Dr. ASHHURST was disposed to consider it a rudimentary radius. The members of the Society interested in these deformities might examine a cast of a similar deformity presented by him to the Museum of the College of Physicians, in which, however, the lesion was the result of an injury. The cast was taken from the arm of an adult, who had in childhood sustained a compound fracture, involving the lower epiphysis of the radius, as a consequence of which the radius had ceased to grow, while the ulna continued to do so, but became incurvated, like that in the specimen exhibited by Dr. Hodge. The strength of the arm seemed to be in no way impaired, the man being able to lift heavy weights and to use his limb in his daily work.

Dr. WM. PEPPER asked whether it was not usual in such cases for the corresponding fingers to be even much more rudimentary than in this case. In one he had examined with some care in the living subject, there was congenital absence of the humerus, radius, and ulna. The carpus was very imperfectly developed. On the ulnar side was but a little bud corresponding to the three ulnar fingers, with corresponding metacarpal bones. The index-finger and thumb with their metacarpal bones were quite well developed. There was a considerable degree of flexion and extension, even from the axilla.

Large white kidney, with albuminoid degeneration of the Malpighian bodies. By Dr. LOUIS STARR, for Dr. WHARTON SINKLER. History by Dr. STARR.

"Harriet R., æt. 22 years, a sempstress by occupation, had, when quite a child, an attack of scarlet fever, unaccompanied, so far as she remembered, by any renal complication. After this her health remained moderately good until the winter of 1872, when she began to lose strength, and to be annoyed by a dry, hacking cough. Several months later she had two profuse hemorrhages from the lungs, succeeded by greater weakness and more troublesome, though looser, cough, the matter expectorated being muco-purulent in character. Notwithstanding the continuance of these symptoms, she was able to work up to February, 1874, at which date she was admitted to the 'Hannah Ward' of the Episcopal Hospital. Shortly afterwards she had another hemorrhage, but subsequently improved steadily, under treatment, and left the hospital in June, to resume her occupation. At that time there was no suspicion of kidney-disease. She was able to work for a short period only, and returned to the hospital in August; on admission she was very anæmic and much prostrated, there was considerable ascites and œdema of the feet and legs, severe cough, and dyspnœa and palpitation of the heart on exertion. During the next eight months, although her strength increased and the dropsy varied greatly, being sometimes well marked while at other times it was almost absent, there was little change in the other symptoms. Early in May, 1875, the urine,

which had previously been abundant, began to diminish in quantity, there was considerable pain in the lumbar regions, and at intervals violent attacks of headache, with dulness and languor, the latter occurring when the urine was most scanty, and always passing off with vomiting or diarrhœa.

"On July 3, when the case came under my observation, the following symptoms were observed: face pale, and surface of body generally waxy in hue; great emaciation and weakness; slight œdema of eyelids and upper part of face; abdomen somewhat distended, and a small collection of fluid in the peritoneal cavity. Tongue clean, appetite poor, digestive powers impaired, and a tendency to obstinate vomiting and diarrhœa. Respiration 36 per minute; cough frequent; expectoration moderately free; sputa muco-purulent and occasionally streaked with blood. There was dulness on percussion over the upper lobes of both lungs, more marked on the right side, and in the same situation auscultation revealed moist crackling and large bubbling râles and broncho-vesicular breathing, the râles being more numerous on the right side, and the bronchial character of the breath-sounds more decided on the left; there was no apparent difference in the shape or movements of the two sides of the chest. The pulse was weak, beating about 96; the cardiac sounds were feeble, but there was no valvular murmur, and the apex-beat was in the normal position. The urine was much decreased in amount, slightly cloudy, acid in reaction, had a sp. gr. of 1018, was highly albuminous, and on standing deposited a whitish sediment, which was found to contain epithelial, fatty, and hyaline casts. The patient complained of headache, and of soreness in the region of the kidneys, and stated that she was most comfortable after vomiting, when the expectoration was abundant, or else during an attack of diarrhœa.

"Throughout July, August, and nearly the whole of September, the headache continued and was subject to exacerbations, when the pain became violent, and she passed into a condition of semi-stupor; these exacerbations, of which there were eight in the period mentioned, lasting from one to three days and occurring at irregular intervals, were always attended with flushing of the face, dry skin, and greatly diminished secretion of urine, or constipation, and were at first relieved, either by spontaneous vomiting and diarrhœa, or by the administration of saline purgatives, and later by the combined use of purgatives and steam-baths. The cough also increased, the sputa became nummular and more purulent, the physical signs connected with the lungs more marked, and dyspnœa and palpitation readily excited. Her appetite, on the other hand, improved, the ascites disappeared, there was no œdema of the legs, and merely trifling puffiness of the face. She remained, however, much prostrated, and was confined to bed for the entire three months, with the exception of a few days in the latter part of August. The urine voided each day in the above time was carefully measured; the amount ranged from one to five ounces, but, as there was nearly constant diarrhœa, it is probable that, though there was undoubtedly a diminution in the quantity, a larger proportion was expelled during defecation, and therefore lost, than was collected. The microscopical characters of the urine remained unchanged; its specific gravity was about normal, 1018 to 1022, and the albumen varied from one-eighth to one-fourth of the bulk tested. On September 22, the day after the first steam-bath, the urine became more copious, clearer, and its specific gravity fell to 1015. Next day another bath was given, and in the succeeding twenty-four hours she passed seventy-four ounces of urine. On September 25, the urine decreased, and she had an attack of uræmic headache and stupor, rendering a third bath necessary. Afterwards her condition improved until October 12, when the wards were transferred to Dr. Sinkler.

"On October 12 and 13, the urine was passed very freely, and she seemed to be doing well, though there was no action of the bowels. On the 14th the quantity of urine was greatly lessened, the bowels continued constipated, and headache, which had been absent since September 29, returned. After this, vomiting and diarrhœa set in, the œdema of the feet and legs reappeared, her skin became hot and dry, the pulse frequent and feeble, and the secretion of urine almost suppressed. The headache likewise increased, and, in spite of the means employed to afford relief, she gradually became comatose, and died on October 31.

"The *post-mortem* examination was made twenty-one hours after death. The body was much emaciated, and there was considerable œdema of the feet and legs. On opening the thorax, both lungs were found to be firmly bound to the chest-walls by old pleuritic adhesions. In the upper lobe of the right lung there were two communicating cavities, the larger being about the size of a walnut; these cavities had irregular walls, and were filled with pus mingled with broken-down lung-tissue. The rest of the lobe was occupied by a cheesy deposit. The middle and lower lobes were congested, and the former contained several isolated collections of caseous substance. The upper lobe of the left lung was indurated, and the bronchial tubes traversing it were dilated. The lower lobe was congested, and at its upper posterior part there was a cavity an inch in diameter, lined by a thick, smooth membrane, and filled with purulent matter; the pulmonary tissue immediately surrounding this cavity was infiltrated with a material resembling that noticed in the upper and middle lobes of the right lung. The pericardium, which was healthy, contained half an ounce

of straw-colored, slightly flocculent liquid. The heart was small, and the muscular tissue was pale and flabby, but all the valves were normal. There was no fluid in the peritoneal cavity. The liver weighed three and three-fourths pounds, and was markedly fatty. The kidneys were large, weighing together sixteen ounces, and presented the appearances of that form of degeneration known as 'large white kidney,' with evidences also of amyloid change in the Malpighian bodies. Nothing abnormal was observed in connection with the other abdominal viscera."

Dr. JAMES TYSON remarked upon a point of therapeutic importance elicited in the history of this case. He referred to the increased secretion of urine which always succeeded the artificially-induced sweats. This confirmed some observations of his own, made about a year ago, in the wards of the Philadelphia Hospital, where, in a case of Bright's disease with large white kidney, he had found by volumetric analysis the amount of urea in the twenty-four hours' urine increased, while a series of daily sweats were carried out by the use of hot-air baths. Although it would, at first thought, be expected that where elimination by the skin is increased, that by the kidneys would be proportionately diminished, the opposite result is entirely consistent with what we would expect in cases of dropsy, where the movement of the blood is sluggish from external pressure; the effect of the sweating being to diminish this and to facilitate a more rapid movement of the blood. The blood moving more rapidly through the kidney, secretion would take place more freely, and more urea would be separated in a given time. Now, if we add to the urea eliminated by the kidneys the increased amount which is further thrown off by the skin during the sweat, it is evident that we have in this mode of treatment a powerful lever for good in the treatment of severe forms of Bright's disease, one which he thought was too constantly overlooked.

Myo-sarcoma from the abdominal cavity. By Dr. JOSEPH V. KELLY.

"I. M., æt. 4 years, was peevish and fretful in the early part of July, 1875, and later in the same month complained of pain in the epigastric region, which pain persisted until death, in the early part of November. Vomited in July, and had diarrhœa. Vomiting of food continued until death; diarrhœa was not constant. I saw him in the beginning of August, when, besides the above symptoms, I learned that he had daily febrile attacks, preceded by chilly feelings and followed by sweating. I looked upon the case as one of malarial poisoning, and gave him quinia, which seemed to do him but little good. Two weeks later I examined the abdomen, and detected an abdominal tumor. This tumor occupied the position of an enlarged liver, excepting that the bulk of the enlargement was situated on the left of the median line, where a hard knot was easily felt. The dulness of the tumor passed into the ordinary splenic dulness, which, I thought, to a certain degree corroborated the diagnosis of chronic malarial poisoning. To the quinia I now added iron and arsenic. At this time there was some ascites, but the urine was normal. As no improvement followed, as the child steadily wasted, and as the signs of obstructed circulation became more marked, two weeks later I gave an opinion that the case was not one of malarial poisoning, as I had hoped at first it might be, but that the abdominal enlargement was due to a malignant growth.

"After this the case passed from my care, and I did not see the little patient subsequently during life. The families of the patient, on both sides, were free from tubercular disease; but the grandfather of the child died of external cancer, which circumstance, I presume, is of importance in the clinical history of the case."

The specimen was referred to the Committee on Morbid Growths, which reported, December 24, 1875, as follows:

"Dr. Kelly's abdominal tumor must be placed among that rare class, the teratoma. Its microscopical appearances are equally as varied as the marked differences in color and consistency noticeable in different nodules of the growth. In many sections *striated muscular fibres* are seen. These are often arranged in bundles of ten to thirty, and these bundles interlace, very much like smooth muscular fibres of the uterus. These muscular fibres are also, at places, solitary; they are of nearly uniform width, which does not greatly vary from that of the physiological fibre, but they are nearly all exceedingly long, stretching over a number of fields. Only rarely is a short primitive fibre to be seen, when both ends are usually pointed, thus resembling a striated spindle-cell.

"Besides the striped muscular fibres, some nodules present a scanty fibrous connective tissue, coursing between the fibres. Others, comprising the greater bulk of the growth, show a typical round-celled sarcomatous growth, with large nucleated cells, a little larger than the white blood-corpuscle. The intercellular substance very sparse, mostly homogeneous. In not a few nodules, these two varieties are found intimately mixed, the sarcomatous cells being arranged either in large groups or in single rows, between the muscular fibres. Your committee would designate this tumor as a *myo-sarcoma striocellulare.*"

Perforating ulcer of the stomach. By Dr. A. F. MÜLLER.

"Mrs. J., æt. 28, housekeeper, had enjoyed perfect health till October, 1872, when she began to feel dull pain immediately under the ensiform cartilage, increased by pressure, with nausea and occasional vomiting. On October 10, 1872, she had an attack of hæmatemesis,

voiding nearly a pint of dark, partly-digested blood, mixed with particles of food. During the following day, after a meal, vomited half a pint of bright arterial blood, also containing undigested food. She was ordered one-half grain doses of nitrate of silver with opium, and had her food given her by enema entirely for nearly three weeks, when small quantities of appropriate food were allowed by the mouth. The patient convalesced slowly, and in six weeks was able to be about the room and to do light household work, but never regained her full strength.

"During the interval between the first attack and the date of death, she had frequent attacks of hæmatemesis, which occurred almost invariably at the menstrual period, the menstrual flow being either entirely absent or very scant, though she had all the premonitory symptoms of menstruation. The pain at the ensiform cartilage was present during nearly the whole of this time in greater or less degree. She could not take a sufficient quantity of food to keep up her general nutrition, and became extremely emaciated, so that during the last three months of her life she was almost a skeleton, and had not strength enough to leave her bed.

"On November 8, 1875, she was suddenly seized with violent abdominal pain and intense nausea and retching. When seen she had all the symptoms following perforation, with cold, clammy extremities, and died within twenty-four hours.

"*Autopsy* thirty-four hours after death; abdominal cavity only examined. When opened, the contents of the stomach were found in the peritoneal cavity, having escaped through a perforation in the anterior wall of the stomach. A number of points of recent exudation were found, and about six ounces of serous effusion. The stomach presented a series of ulcers, varying from the perforating ulcer to a simple erosion of the mucous membrane."

Dr. PEPPER said the existence of so large a number of ulcerations of this character was decidedly unusual; but a few days ago he had made an examination of the stomach of a lunatic, in which there were cicatrices and a number of minute ulcerations, limited, however, to destruction of the mucous membrane.

Dr. J. EWING MEARS said this was an interesting specimen to examine in connection with the cause of gastric ulcer, with a view to Virchow's theory of metastatic origin. Perhaps a close examination of the specimen to this end would lead to valuable results.

Dr. PEPPER inquired whether the occurrence of vomiting of blood was markedly limited to the menstrual period.

Dr. MÜLLER replied that it was almost entirely.

Dr. PEPPER said that this fact had been quoted as a mark of diagnostic value between vicarious hemorrhage and hemorrhage from gastric ulcer in females. But he had himself suspected that even in gastric ulcer there was a much greater disposition to hemorrhage at the menstrual than at other periods. This suspicion is confirmed by the facts in Dr. Müller's case.

Syngamus trachealis from the trachea of chickens. By R. M. BERTOLET, M.D.

Specimens, drawings, and microscopic slides of this entozoon, one of the most remarkable of all animal parasites, are presented, clearly exhibiting the double nature of the worm. The male is found permanently united to the female, and can only be separated by mechanical violence, when a portion of the male worm is generally left behind.

It has been asserted that the embryonal male and female worm are already united in the same ovum. I have made numerous ineffectual attempts to incubate the eggs artificially. I reserve my paper for publication in the annual volume of transactions of the Society.

Dr. W. H. WINSLOW desired to know the evidence upon which it was concluded that the specimen was a union of two individuals which were united in one body, and how the smaller one was known to be a male. He said that as we approach the lower forms of the animal kingdom, to which most parasites belong, we find many anomalies, and soon get into a region of mystery. Even among the cephalopoda of the mollusca we find a very curious departure from ordinary sexual arrangements. In the Argonauta one of the tentacles or arms becomes filled by spermatozoids, and then is spontaneously amputated by a constriction at the base, and goes floating away. This was described as a distinct species, and named a hectocotylus. It was found later snugly ensconced within the pallial chamber of the female argonaut, and was then supposed to be the entire male, and it is only lately that the true nature has been discovered.

The specimen presented may be one of the same character,—a male organ united to the female,—or it may be an hermaphroditic animal.

Dr. BERTOLET replied that the best evidence of the male sexual character consisted in a pair of testicles situated in the base of the smaller body, which was attached to the larger worm filled with unmistakable oviducts; that the two animals could only be torn apart by rupturing the tissues.

(To be continued.)

OZONE.—M. Leuder (*Annali di Chem.*, November, 1875) proposes the following powder for the generation of ozone: Equal parts of peroxide of manganese, permanganate of potash, and oxalic acid; for a medium-sized room two tablespoonfuls. When water is added the ozone is rapidly generated.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

NOVEMBER 1, 1875.

Director W. S. W. RUSCHENBERGER, M.D., in the chair.

THE report of the Committee having charge of the exhibition was read, adopted, and the Committee discharged. On motion of Dr. Tyson, the report was recommended for publication in the *Philadelphia Medical Times*. It was as follows:

"PHILADELPHIA, October 30, 1875.

"*To the Biological and Microscopical Section of the Academy of Natural Sciences.*

"The Committee on the semi-annual exhibition respectfully report that, in accordance with our by-laws, a display of microscopes, microscopic apparatus, and specimens was given at the Hall of the Academy on the evening of October 4, 1875, and witnessed by a large and appreciative audience. After a few appropriate introductory remarks in explanation of the intentions of the Section, offered by Dr. J. L. Leconte, Chairman of the Committee, the preparations arranged beneath the microscopes were inspected by the crowds of ladies and gentlemen present, an earnest effort being made by members to interest all, and especially our numerous lady visitors, both in the wonderful revelations of the microscope and in the general objects of the Academy.

"At these public meetings of the Section, where the Committee are themselves exhibitors, and, therefore, have their own instruments to superintend, it is manifestly difficult for them to obtain complete accounts in relation to the objects shown by each individual: so that if all who so kindly aided us are not specifically mentioned in the subjoined report, that omission is due solely to our want of accurate information.

"Dr. C. N. Pierce exhibited a beautiful specimen of arranged shells of the polycystina, which attracted great and deserved attention, and also had under his care a fine microscope, loaned by Dr. Boker, on which were displayed the curious anchors and plates of the Synapta.

"Dr. J. G. Richardson showed the spectrum of blood in its state of higher oxidation (scarlet cruorin), comparing with it those of other substances by bringing the two spectra together in the field of the microscope. The objective used was of higher power than that commonly employed for the purpose, thus permitting the application of the test to smaller quantities of blood than usual, whilst the spectra were nevertheless well defined and brilliant.

"Mr. T. W. Starr exhibited, under a four-inch lens, some beautiful entire insect preparations of his own work. These slides were distinctly shown by Mr. Starr, who has no superior in this department of microscopy. He was, moreover, one of the first in this country to obtain best results in these difficult preparations.

"Dr. J. H. McQuillen showed a fine specimen of voluntary muscular fibre, displaying the striæ on the ultimate fibrillæ with unusual distinctness.

"Dr. J. Cheston Morris exhibited, on a Spencer microscope, the lingual teeth of a snail (Eolis), a section of whalebone, and anchors and plates of Synapta.

"Dr. Carl Seiler showed his very ingenious camera for photo-micrography, with some exquisite photographs of microscopic objects, one of which in particular, that of a section from the leaf of the Calla lily, seemed even sharper than the specimen itself, as displayed beneath one of his microscopes.

"Mr. W. H. Walmsley, of J. W. Queen & Co., exhibited two handsome stands, one of them being Beck's large complete instrument; also their improved Holmes's pattern class microscope, furnished at the low price of fifteen dollars. Slides of butterfly-scales, artificially arranged in forms of vases holding flowers, and in other groupings, were well shown under these instruments, and evidenced the wonderful patience and skill of the preparer, as well as the brilliancy and beauty of the natural scales themselves.

"Dr. A. G. Reed exhibited some beautiful slides, mounted by Dr. E. M. Shaeffer, of Washington, among which a section of pig's stomach and a carmine injection of rabbit's tongue were especially fine. He gave also a beautiful display of the circulation of the blood in a small salamander, comfortably ensconced in one of Holman's ingenious life-slides.

"Some preparations of double staining in plant-tissue were exhibited by Dr. J. Gibbons Hunt. An entire leaf of limnanthemum showed the larval condition (perhaps) of some unrecognized insect, encysted in its under surface. Pilea Virginica showed at the junction of the veins in some places an appearance suggesting a resemblance to nervous ganglia, and these were covered with stomata differing from the other stomata on the same leaf, it being rare to find two such varieties of stomata so situated. Dr. Hunt was the first to practise successfully double staining of this kind in botanical work, and his preparations have the merit of showing equally well by daylight and lamplight.

"All of which is respectfully submitted.

"Signed,

"JOHN L. LECONTE.
"JOS. G. RICHARDSON.
"J. GIBBONS HUNT."

Dr. J. G. RICHARDSON read a paper entitled "An Improved Method of Applying the Micro-Spectroscopic Test for Blood-Stains," and illustrated its operation upon a spot only $\frac{1}{100}$ of an inch square. The paper

was referred to a committee composed of Drs. Tyson, J. G. Hunt, and Seiler. See *Philadelphia Medical Times* for November 13, 1875.

Dr. TYSON inquired whether the brown cruorin of old blood-spots did not give a single band in the green, instead of the two bands shown in the preparation upon the table.

Dr. RICHARDSON replied that such was stated to be the fact, but that he had found in many instances simply an additional line in the red, and this was particularly the case in blood from a stain five months old, connected with the murder-trial referred to in his paper.

Dr. J. G. HUNT observed that Dr. Richardson had strictly limited himself to the task of increasing the delicacy of the tests for comparatively fresh blood, and he had certainly succeeded in rendering them obvious with a marvellously small amount of material. He would suggest the study, under the microspectroscope, of the green color produced by guaiacum and ozonized ether, in the hope that it might afford a fourth easily-obtained proof of the presence of blood.

Dr. TYSON remarked that, as a fourth corroborative test for blood-stains, he would recommend the employment of Teichmann's plan for the production of hæmin-crystals by evaporation after adding a small quantity of salt and an excess of glacial acetic acid. He had recently used this method for determining the presence of blood in a specimen of urine, with satisfactory results.

Dr. J. G. HUNT showed a remarkably broad section from a specimen of scirrhus of the mamma, stained with hæmatoxylon, and exhibiting nests of nucleated cells in their alveoli with unusual clearness and perfection.

Dr. CARL SEILER displayed a fine specimen of the trunk of a large nerve from a kitten, showing several ganglia.

Dr. RICHARDSON moved to refer two communications from Mr. R. B. Tolles and Mr. Charles Stodder, read at a previous meeting, to a committee of which Dr. Hunt should be a member. This proposition was objected to by Dr. Hunt, and after some discussion it was resolved, on motion of Mr. Charles Bullock, seconded by Dr. Tyson, that these papers should be laid upon the table.

REVIEWS AND BOOK NOTICES.

PHYSICIAN'S COMBINED CALL-BOOK AND TABLET. By RALPH WALSH, M.D., Washington.

Of the various conveniences invented for the book-keeping of the physician, this seems to be one of the most useful. As it is only three-eighths of an inch thick, furnished with pockets, place for pencil, etc., it is really a large pocket-book, in which prescription-blanks may be carried, with printed pages so arranged as to occupy very little space and yet serve for a record of the day's or month's work.

THE MEDICAL JURISPRUDENCE OF INSANITY. By J. BALFOUR BROWNE, Esq. Second Edition. Philadelphia, Lindsay & Blakiston.

If we mistake not, this volume of seven hundred pages was not only conceived on British soil, but was there brought *per vias naturales* into actual legal life. If so, it is an original, and not a reprint. In looking at the subject of which it treats, the point of view alters very materially the aspect, so that the medical and the legal professional opinion at times are even antagonistic.

It is hardly necessary to state that the book before us is an exposition of the legal view, and scarcely more necessary to make it known that it is a very able and almost exhaustive exposition; the success of the first edition being open evidence to the fact. We have not space here to argue which is the better, the medical or the legal way of looking at the subject, even if we had any desire. So far as concerns the present, it is enough to know that in order to combat successfully, the combatant must be acquainted with his enemy. Every medical man, to hold his own in a court of justice, ought to be familiar with the law and its methods.

Hence, whether Mr. Browne, his associates and fellow-believers, are in the right or not, they are in the position to command attention, and every one who professes to be a medical expert ought to be familiar with the contents of the book now under consideration.

Mr. Browne's matter appears to us excellent. His style is usually clear, and, although sometimes a little careless, is on the whole very good, excepting that it is marred by the abominable practice of deifying one's self, by assuming to be of such duplicated importance as to be represented properly by *we* instead of *I*.

In conclusion, we wish success to Mr. Browne's effort. Its clear, logical conclusions may at times seem lacking in humanity to the individual, but we are far from believing that therefore they are not best for society; and assuredly out of the mist it is at least a comfort for the time being to find some rules which seem closely cut and readily applicable.

MEDICAL DIAGNOSIS. By J. M. DA COSTA. Fourth Edition. J. B. Lippincott & Co.

The book of Prof. Da Costa is so familiar to all our subscribers that we have only to inform them of the outcome of a new edition. In a work of the character of that before us there is not room for much change,—the department of medical diagnosis suffering no such violent advance as that which afflicts the student of other branches of medicine; still, Dr. Da Costa has made "a number of additions and of changes," chiefly affecting the

chapters on Nervous Diseases and on Fevers, so that the book will, without doubt, continue to hold in the future, as it has done in the past, the position of the foremost work in the language on the subject of which it treats.

PRINCIPLES OF HUMAN PHYSIOLOGY. By WILLIAM B. CARPENTER, M.D. Edited by HENRY POWER. Eighth Edition. Philadelphia, Lindsay & Blakiston.

This new edition of Carpenter's Physiology is in most of its departments fully brought up to the present. In some parts, however, such as those treating of the vaso-motor system and animal heat, its editor does not appear to have been acquainted with the latest experimental investigations. The book is evidently English in manufacture, and is of the same awkward shape and size as the previous English editions.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Vol. V. Edited by JAMES TYSON, M.D. Philadelphia, 1876.

This handsome volume of over two hundred and fifty pages, the result of one year's work, is another outcome and seal of the medical revival in this city. As its contents have appeared during the year in the pages of this journal, comment on them is needless.

GLEANINGS FROM EXCHANGES.

THE SIGNIFICANCE OF PROLONGED EXPIRATION AND TENDERNESS ON PERCUSSION (*The London Medical Record*, September 15, 1875).—Dr. Solger writes that he has noticed that tenderness on percussion in the supra-clavicular region is often associated with prolonged expiration and with enlarged lymphatic glands. He uses a moderate-sized hammer, weighing about one ounce, taking care not to press on the edge of the pleximeter, or to make actual pressure upon enlarged glands. He says percussion with the fingers does not elicit this pain. The enlarged lymphatic glands noticed by him are seldom on the sterno-cleido-mastoid, and those in that situation generally depend on a different cause. The glands in question are found on the anterior border of the trapezius, and towards the back of the head, chiefly in the lower part of the neck, especially in the triangle between the trapezius and the sterno-cleido-mastoid, whose base is formed by the scalenus muscle. There the cervical plexus, the sympathetic and vagus nerves, all meet; and the deep lymphatics of the chest, especially those of the pleura, are in relation with the cervical glands. To these glands, and to inflammation in the peribronchial connective tissue, causing compression of the smaller bronchi, he attributes the prolonged expiration heard in the early stages of many lung-diseases.

GUNSHOT WOUND OF CHEST AND ABDOMEN (*The Lancet*, December 11, 1875).—Mr. Richard Barwell reports the case of a young man who shot himself with a Derringer pistol, the external wound lying over the cartilage of the eighth rib about four inches from the sternum. No probe could be passed into the opening save for a few lines immediately below the skin in a direction upwards and outwards. He complained of no pain except at the left acromion, where it was severe. He was in a state of considerable collapse, which increased; vomiting became frequent; he suffered greatly from strangury, and died about twelve hours after the receipt of the injury. At the post-mortem a small slit was found in the diaphragm, with no mark of bruising or extravasation; a little hole in the stomach was found, and another in its posterior wall. Removing the stomach, all trace of the bullet was lost; neither on the fat behind that organ nor elsewhere could any opening be found. The kidney was now removed, and in its upper and inner edge, just in front of the supra-renal capsule, a small crack or chasm was found, the extreme margin of which was blackened by extravasation. Behind the kidney, after careful search, a little split or rift was found in the fascia covering the psoas; it was not stained by effused blood. The probe when passed into this ran backward and a little upward, and on dividing the parts the bullet was found imbedded behind the muscle just above the transverse process of the second lumbar vertebra, its conical end directed almost directly upwards. On trying the bullet on the blackened spot on the eighth costal cartilage, it was found that by exercising rather considerable pressure it could be made to pass through a hole formed by three convergent rifts, which, instantly after the passage, snapped together again like the flaps of a valve, and left no hole or perceptible trace of passage.

An interesting point is the very little injury the bullet did to the traversed tissues. The wounds in such vascular organs as the stomach and kidney had a dark margin of bruising less wide than the hem of a lady's handkerchief; but parts less richly supplied with blood showed merely minute slits where the bullet had passed, and among fat, as that round the kidney, no track could be found at all.

The symptom, a prominent one throughout, pain at the acromion, must be ascribed to wound of the diaphragm; the strangury to wound of the kidney.

LIGATURE OF THE FEMORAL ARTERY WITH ANTISEPTIC CATGUT (*The Lancet*, December 11, 1875).—Five cases of this operation are brought forward by Mr. Nankivell, not as instances of the success or failure of the antiseptic treatment, but simply to show the results of catgut ligature on arteries deligated in continuity. In none of these patients was there the slightest sign of secondary hemor-

rhage, nor was any portion of the ligature seen in the dressings. The wound was healed in twenty-one, thirty-one, twenty-one, fifty-four, and forty days respectively. In attempting to compare the period of cure of cases treated by catgut, on the one hand, and silk or hemp, on the other, it is difficult to arrive at satisfactory conclusions, because of the melting away of the ligature in the one instance and of the separation of the thread in the other. Mr. Nankivell does not think that the presence of the catgut prevents primary adhesion of the deeper parts of the incision. At all events, he was not troubled by any sinuses, as has been stated to have occurred in some cases in the practice of other surgeons.

ABDOMINAL SECTION FOR INTUSSUSCEPTION (*The Lancet*, December 18, 1875).—At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Howard Marsh reported the case of a child, æt. 7 months, who was attacked with dysenteric diarrhœa, which continued for about thirteen days, when he suddenly became worse, and in a few hours was in a state of collapse. The bowel was found projecting two inches beyond the anus, the ileo-cæcal valve being at the extremity of the protrusion, while in the abdomen a firm cylindrical tumor was felt, extending in the course of the descending colon, from the left of the umbilicus to the left iliac fossa. Insufflation and the careful distention of the large intestine with lukewarm water failed to reduce the intussusception. The abdomen was then opened, the intussusception reduced, and the wound closed with harelip pins and sutures. The child was convalescent on the fourth day. Mr. Marsh thought the operation should be undertaken, if all other means had failed, (1) in acute cases of not more than twelve or eighteen hours' duration; and (2) in chronic cases in which there had been no symptoms of inflammation or strangulation of the intestine.

Mr. Jonathan Hutchinson reported a similar case in an infant, æt. 6 months, in which, however, there was considerable difficulty in replacing the intestines, and death resulted in six hours. He attributed this termination to the fact of the intestines having been punctured to facilitate their replacement. He stated also that one of his chief objects in bringing the case before the Society was to suggest, for the guidance of future operations, the propriety of always seeking first the lower end of the intussusception. He believed it would generally be found much easier to bring the lower end into the wound without allowing the escape of the rest of the intestines. He thought it probable also that it would usually be found much easier (as it was in this instance) to effect reduction by drawing the sheath downwards from off its contents, than by drawing the contents upwards from within the sheath. The difficulty in reducing by traction results from the fact that the sheath becomes puckered up into rings, which act as so many strictures upon its contents. He thought it even possible that, by attention to this rule, reduction might sometimes be effected without bringing the parts externally.

Mr. T. Smith drew attention to the significance of hemorrhage, which could not occur if there were complete strangulation. He did not think the size of the incision of much moment, since, if we have learnt anything from ovariotomy, it is that mechanical interference with the peritoneum is not an element of great danger. The danger in such cases lay in the retention of a little blood or pus in the peritoneal cavity, and all the viscera could be sponged with impunity. The length of the incision would probably facilitate the operation, the only difficulty thus produced being in the return of the bowel. It would be often necessary to puncture the intestine with a fine trocar or needle.

Dr. Hare pointed out that the cases could be grouped under two categories,—one in which the bowel was constricted, the other in which it was strangulated. In the former class there was great congestion of the intussuscepted portion, for the reflux of blood by the veins was cut off, but the arteries still remained patent. He urged the injection of *ice-cold* water to reduce this congested state. He had in analogous cases succeeded by this means, aided by application of ice to the abdomen. Not only did cold act by emptying the congested vessels, but also by diminishing the volume of air in the bowel.

Dr. Legge reported a successful case, for the purpose of calling attention to the significance of hemorrhage as a symptom of increasing congestion, and therefore an urgent indication for the performance of the operation.

DIABETES TREATED BY SKIMMED MILK (*The Medical Press and Circular*, December 29, 1875).—At a recent meeting of the Clinical Society of London, Dr. Donkin read reports of two cases of diabetes mellitus, in which the skimmed-milk treatment was adopted early in the disease, with the result of causing an entire disappearance of the sugar in a week in the first case, and within twelve days in the second. Dr. Donkin thought these two cases good illustrations of the efficacy of the treatment in arresting the disease when applied early.

TRAUMATIC TETANUS (*Virginia Medical Monthly*, January, 1876).—Dr. A. M. Fauntleroy reports a case of tetanus following a bruise of the big toe. It was treated with chloral, calabar bean, and a diet of milk and beef-tea, and after persisting for about three weeks resulted in complete recovery.

THE Government standard for opium, according to the present customs regulations, is nine per cent. of morphia; the Philadelphia *Drug Exchange Circular* maintains that the law calls really for only seven per cent.

MISCELLANY.

STATE HOSPITAL FOR WOMEN AND INFANTS.—The second annual report of this institution shows, after three years' trial of the experiment, very gratifying results. Of the one hundred and twenty-five obstetric cases received and cared for, the report says, not one is known to be following a disreputable life. Fifty-eight have returned to their homes or former employers, sixteen have obtained honorable employment, and fourteen have married the fathers of their children. Such a record, as the report truly says, is vastly superior to the statistics of suicide, fœticide, infanticide, and prostitution, which might, under other circumstances, have been presented.

The Board, claiming that the institution has proved a success according to its opportunities, and that it has saved from additional folly, guilt, and suffering, most, if not all, of the unfortunates who have sought its shelter, appeal for help to extend the advantages of the hospital, and place it upon a permanent basis.

The President, Dr. J. W. White, 2012 Green Street, will be happy to receive contributions.

NIGHT-SERVICE.—The Paris Prefect of Police, having obtained a necessary grant of funds from the municipal authorities of the city, is now taking active measures for the organization of a night medical service in Paris. At every police station in Paris there will be a list of the medical men of the respective quarter who are willing to make night-visits in cases of urgency. The applicant for help can choose a name out of the list; a police-agent then accompanies him to the doctor's house, summons the doctor, accompanies him to the patient's residence, and re-accompanies him home. An order for ten francs is then given to the medical man, and it is the police administration which has to get itself paid by the patient.

THE following is an extract from the diary of the late Mr. Mewburn:

"The following statement from the fee-book of Sir Astley Cooper is curious:

"My receipt for the first year was £5 5s.; for the second, £26; the third, £64; the fourth, £96; the fifth, £100; the sixth, £200; the seventh, £400; the eighth, £610; the ninth, £1100.

"In 1815 Sir Astley made £21,000!! A Mr. Hyatt, an ancient merchant, gave him £1000 on recovery under his care; and Mr. Coles, of Mincing Lane, for a long course of time, gave him £600 every Christmas."—*Med. Press and Circular.*

TREATMENT OF ECZEMA IN CHILDREN.—Dr. Calpari (*Bulletin de Thérapeutique*) extols the effect of lime-water in curing eczema of the head and impetigo of the face in children, especially chronic cases, which have resisted other treatment, and states that a marked improvement is noticeable after using it for eight days. He recommends it to be taken in quantities varying up to half a pint, according to the age of the patient, and to dust the part with carbonate of magnesia; but the latter he only considers necessary when the secretion is very irritant.—*The Doctor.*

DISLOCATING THE JAW FOR CHLOROFORM-NARCOSIS.—Dr. Fleiberg, of Christiania, recommends the surgeon to deliberately dislocate the jaw, instead of pulling the tongue out with forceps, etc. It is easy to do this by placing both thumbs behind the symphysis, and both index-fingers on the posterior edges of the rami, and dragging the bone forward. He seems to do it as a preventive, for he speaks of having done it *a thousand* times. Langenbeck tells us that he and Esmarch have often done this. Perhaps these surgeons will tell us if dislocation often occurs spontaneously to those who have thus been treated. —*The Doctor.*

LIPOMA.—Dr. Hasse, of Nordhausen, according to *L'Union Médicale*, recommends in cases of lipoma injections of alcohol. He injects a quantity of the liquid into the tumor at various points at intervals of several days, and, as a result, the growth soon softens and fluctuates. It only remains to incise the tumor and to evacuate with slight pressure the oily liquid which it contains. The reaction is ordinarily slight.—*Boston Med. and Surg. Journ.*

IT is stated that during the past year one hundred and seventy-one pupils received instruction in the St. Petersburg Female Medical College. Of these one hundred and two are noble, seventeen are daughters of merchants, and twelve of clergymen, the remaining twenty-four belonging to other classes of society.

A CHILD was recently scalded to death in Great Ormond Street Hospital, London, by being put in a too hot bath.

OFFICIAL LIST.

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 16, 1876, TO JANUARY 29, 1876, INCLUSIVE.

MCCORMICK, C., SURGEON.—Relieved from duty as Medical Director, Department of California. S. O. 15, A. G. O., January 21, 1876.

KEENEY, C. C., SURGEON.—To report to the Commanding General, Department of California, for assignment to duty as Medical Director of that Department. S. O. 15, c. s., A. G. O.

WILLIAMS, J. W., ASSISTANT-SURGEON.—Leave of absence still further extended one month. S. O. 15, c. s., A. G. O.

MERRILL, J. C, ASSISTANT-SURGEON.—Assigned to duty at Fort Brown, Texas. S. O. 9, Department of Texas, January 17, 1876.

HALL, WM. B., ASSISTANT-SURGEON.—Assigned to duty at Fort Wrangel, Alaska Territory. S. O. 6, Department of the Columbia, January 11, 1876.

TAYLOR, M. E., ASSISTANT-SURGEON.—Assigned to duty at the Post of McComb City, Miss. S. O. 9, Department of the Gulf, January 14, 1876.